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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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BIRCH, STEWART, KOLASCH AND BIRCH
P. O. Box 747
Falls Church, VA 22040-0747

[REDACTED] EXAMINER

MCCARTNEY, LINZY T

ART UNIT	PAPER NUMBER
2671	2

DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/754,361

Applicant(s)

OHTSUKA ET AL.

Examiner

Linzy McCartney

Art Unit

2671

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 5 January 2001.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-14 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 5 January 2001 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) Interview Summary (PTO-413) Paper No(s) _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,313,816 to Kojima et al. (Kojima) and U.S. Patent No. 6,243,059 to Greene et al. (Greene).

a. Referring to claim 1, Kojima discloses a light emitting portion for emitting a display light (Fig. 3); a memory portion for storing information including a chromaticity conversion parameter obtained on the basis of said display characteristics information (column 3, lines 12-19); and a chromaticity converter portion receiving image data and said chromaticity conversion parameter, for converting chromaticity of said image data on the basis of said chromaticity conversion parameter (column 2, lines 62-65; column 3, lines 40-44). Kojima does not explicitly disclose storing the display characteristic information. Greene discloses storing the display characteristic information (column 13, lines 12-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

b. Referring to claim 2, Kojima discloses an operation portion receiving chromaticity range information (column 8, lines 27-37) on a predetermined chromaticity range common to said plurality of display units constituting said display portion (column 6, lines 18-21 and 56-66; Fig. 4) for obtaining said chromaticity conversion parameter on the basis of said chromaticity range information and said display characteristic information (column 8, lines 39-47; column 3, lines 12-18) Kojima does not explicitly disclose the operation portion receives display characteristics information. Greene discloses the operation portion receives display characteristics information (column 13, lines 12-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

c. Referring to claim 3, Kojima discloses light emitting portion is divided into a plurality of blocks (column 2, lines 50-60; Fig. 1); information includes information on each of said plurality of blocks (column 3, lines 12-19); said chromaticity converter portion converts chromaticity of said image data for each of said plurality of blocks on the basis of said chromaticity conversion parameter for each of said plurality of blocks (column 3, lines 12-18).

d. Referring to claim 4, Kojima discloses an operation portion receiving chromaticity range information on a predetermined chromaticity range (column 8, lines 27-37) including a chromaticity range common to said plurality of display units constituting said display portion (column 6, lines 18-21 and 56-66; Fig. 4)

for obtaining said chromaticity conversion parameter for each of said plurality of blocks on the basis of said chromaticity range information and said display characteristics information on each of said plurality of blocks (column 3, lines 12-18; column 7, lines 38-41). Kojima does not explicitly disclose the operation portion receives display characteristics information on each of said blocks.

Greene discloses the operation portion receives display characteristics information on each of said blocks (column 13, lines 7-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

e. Referring to claim 6, Kojima discloses each of said plurality of display units having a light emitting portion for emitting a display light (Fig. 1; column 2, lines 50-60); said display control device being provided outside said plurality of display units communicably there with (Fig. 3), and said display control device comprising a chromaticity determination portion for determining a predetermined chromaticity range including a chromaticity range common to said plurality of display units on the basis of all said display characteristics information (column 6, lines 18-21 and 56-66; Fig. 4). Kojima also discloses providing a correcting circuit for each block (column 7, lines 38-41). Kojima does not explicitly disclose each of said plurality of display units storing information including display characteristics information of said light emitting portion or receiving said display characteristics information from each of said plurality of display units. Greene

discloses receiving said display characteristics information from each of said plurality of display units and storing information including display characteristics information of said light emitting portion for a color correction circuit (column 13, lines 12-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

f. Referring to claim 7, Kojima discloses an operation portion receiving chromaticity range information on said predetermined chromaticity range (column 8, lines 27-37) and obtaining a chromaticity conversion parameter for each of said plurality of display units on the basis of said chromaticity range information and said display characteristics information (column 3, lines 12-18; column 7, lines 38-41). Kojima does not explicitly disclose the operation portion receives display characteristics information on each of said blocks. Greene discloses the operation portion receives display characteristics information on each of said blocks (column 13, lines 7-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

g. Referring to claim 8, Kojima discloses light emitting portion is divided into a plurality of blocks (column 2, lines 50-60; Fig. 1); information includes

information on each of said plurality of blocks (column 3, lines 12-19); said chromaticity converter portion determines a chromaticity range including a chromaticity range common to all said plurality of blocks of said plurality of display units as said predetermined chromaticity range on the basis of said display characteristics information of all said plurality of blocks (column 3, lines 12-18; column 7, lines 38-41; column 8, lines 27-37; Fig. 4).

h. Referring to claim 9, Kojima discloses an operation portion receiving chromaticity range information on said predetermined chromaticity range (column 8, lines 27-37) for obtaining said chromaticity conversion parameter for each of said plurality of blocks on the basis of said chromaticity range information and said display characteristics information on each of said plurality of blocks (column 3, lines 12-18; column 7, lines 38-41). Kojima does not explicitly disclose the operation portion receives display characteristics information on each of said blocks. Greene discloses the operation portion receives display characteristics information on each of said blocks (column 13, lines 7-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the computation of the color gamut (Greene, column 13, lines 14-16).

i. Referring to claim 10, Kojima discloses a display portion constituted of a plurality of display units which are arranged (column 2, lines 50-60); a display control device provided outside said plurality of display units communicably therewith, for controlling display of said plurality of display units (Fig. 3); and an

operation portion (Fig. 3), wherein each of said plurality of display units comprises: a light emitting portion for emitting a display light (Fig. 3); said display control device comprises: a chromaticity range determination portion, for determining a predetermined chromaticity range including a chromaticity range common to said plurality of display units on the basis of all said display characteristics information (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37), and said operation portion receives chromaticity range information on said predetermined chromaticity range for obtaining said chromaticity conversion parameter for each of said plurality of display units on the basis of said chromaticity range information and said display characteristics information (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37). Kojima does not explicitly disclose that each of the plurality of display units comprises a memory portion for storing information including display characteristics information of said light emitting portion and a chromaticity conversion parameter obtained on the basis of said display characteristics information or a chromaticity converter portion receiving image data and said chromaticity conversion parameter, for converting chromaticity of said image data on the basis of said chromaticity conversion parameter; nor does Kojima disclose receiving said display characteristics information from each of said plurality of display units. Greene discloses receiving display characteristics information from each of said plurality of display units (column 13, lines 7-16) and memory portion for storing information including display characteristics information of said light emitting portion (column 13, lines 7-16) and a chromaticity conversion parameter

obtained on the basis of said display characteristics information (column 13, lines 16-24) and a chromaticity converter portion receiving image data and said chromaticity conversion parameter, for converting chromaticity of said image data on the basis of said chromaticity conversion parameter (Fig. 6). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the design and manufacture of monolithic and tiled displays of superior uniformity (Greene, column 4, lines 39-44).

j. Referring to claim 11, Kojima discloses said operation portion is inside said display control device (Fig. 3). Kojima does not explicitly disclose the display control device transmits said chromaticity conversion parameter obtained in said operation portion to corresponding one of said plurality of display units. Greene discloses transmitting said chromaticity conversion parameter obtained in the operation portion to corresponding one said plurality of display units (Fig. 7; column 12, 31-42; column 13, lines 12-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the design and manufacture of monolithic and tiled displays of superior uniformity (Greene, column 4, lines 39-44).

k. Referring to claim 12, Kojima discloses said light emitting portion of each of said plurality of display units is divided into a plurality of blocks (column 2,

lines 50-60); said information includes information on each of said plurality of blocks (column 3, lines 12-19); said chromaticity converter portion of each of said plurality of display units converts chromaticity of said image data of each of said blocks on the basis of said chromaticity conversion parameter for each of said plurality of blocks (column 3, lines 12-18); said chromaticity range determination portion of said display control device determines a chromaticity range including a chromaticity range common to said plurality of blocks of said plurality of display units as said predetermined chromaticity range on the basis of said display characteristics information of all the plurality of blocks (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37); said operation portion provided inside said display control device (Fig. 3) receives chromaticity range information on said predetermined chromaticity range for obtaining said chromaticity conversion parameter for each of said plurality of blocks on the basis of said chromaticity range information and said display characteristics information on each of said plurality of blocks (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37). Kojima does not explicitly disclose receiving display characteristics information on each of said plurality of blocks. Greene discloses receiving display characteristics information on each of said plurality of blocks (column 13, lines 7-16).

1. Referring to claim 13, Kojima does not explicitly disclose a plurality of operation portions, each of said plurality of operation portions is provided inside each of said plurality of display units or said display control device transmits said chromaticity range information to said each of said plurality of display units.

Greene discloses a plurality of operation portions, each of said plurality of operation portions is provided inside each of said plurality of display units (Fig. 7) and said display control device transmits said chromaticity range information to said each of said plurality of display units (Fig. 7; column 12, 31-42; column 13, lines 12-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the design and manufacture of monolithic and tiled displays of superior uniformity (Greene, column 4, lines 39-44).

m. Referring to claim 14, Kojima discloses said light emitting portion of each of said plurality of display units is divided into a plurality of blocks (column 2, lines 50-60); said information includes information on each of said plurality of blocks (column 3, lines 12-19); said chromaticity converter portion of each of said plurality of display units converts chromaticity of said image data of each of said blocks on the basis of said chromaticity conversion parameter for each of said plurality of blocks (column 3, lines 12-18); said chromaticity range determination portion of said display control device determines a chromaticity range including a chromaticity range common to said plurality of blocks of said plurality of display units as said predetermined chromaticity range on the basis of said display characteristics information of all the plurality of blocks (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37); said operation portion provided inside said display control device (Fig. 3) receives chromaticity range information on said predetermined chromaticity range for obtaining said chromaticity conversion

parameter for each of said plurality of blocks on the basis of said chromaticity range information and said display characteristics information on each of said plurality of blocks (column 6, lines 18-21 and 56-66; Fig. 4; column 8, lines 27-37). Kojima does not explicitly disclose receiving display characteristics information on each of said plurality of blocks. Greene discloses receiving display characteristics information on each of said plurality of blocks (column 13, lines 7-16). At the time the invention was made, it would have been obvious to one of ordinary skill to modify the teachings of Kojima with the teachings of Greene. The suggestion/motivation for doing so would have been because it would allow the design and manufacture of monolithic and tiled displays of superior uniformity (Greene, column 4, lines 39-44).

3. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima in view of Greene as applied to claim 1 above further in view of U.S. Patent No. 6,493,008 to Yui.

a. Referring to claim 5, the modified apparatus of Kojima as applied above meets the limitations recited in claim 5 except a received-signal processing portion receiving a mixed signal in which a plurality of signals including said image data are mixed, for separating said mixed signal into said plurality of signals. Yui discloses the aforementioned limitation (column 6, lines 43-54). At the time the invention was made, it would have been obvious to one of ordinary skill to further modify the teachings of Kojima with the teachings of Yui. The suggestion/motivation for doing so would have been because it would allow the

simultaneous display of image data inputted from a plurality of image sources on a display unit (Yui, column 1, lines 8-11).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Linzy McCartney** whose telephone number is (703) 605-0745. The examiner can normally be reached on Mon-Friday (8:00AM-5:30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at (703) 305-9798.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ltm
May 5, 2003



MARK ZIMMERMAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Application/Contract Number: 09/754,361
Art Unit: 2671

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